Mrs. T. C. Heatwole

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N. B. Rainer

Magnetic Carbon - Request for Novelty Search

I would like to have a novelty search carried out on the following recent laboratory findings:

Finely divided carbon has been made which is attracted to a strong magnet. The product has been made in the following ways:

A. A channel black having surface carboxyl groups and a particle size of 30 mμ was contacted with an aqueous solution of stannous chloride, then with an aqueous solution of Palladium chloride, and subsequently treated with an electroless nickel plating solution containing nickel salts with appropriate complexing and reducing agents. The treated channel black was then washed and dried.

B. Raney nickel alloy was incorporated into a microporous PVC matrix, activated by treatment in 10% NaOH solution, and washed in water. Upon drying in air, a pyrophoric reaction converted the PVC to powdery carbon.

The magnetic carbon may be potentially useful in duplicating processes such as Xerography and Electrofax systems, or in computer-responsive magnetic inks.

No further work will be done on this topic until an assessment of novelty is made. It is therefore hoped that your search can be carried out with reasonably good priority.

NBR:mro

cc: Dr. T. S. Osdene
Dr. R. M. Ikeda
Dr. P. A. Eichorn
Mr. W. B. Cridlin

N B Rainer

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